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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,293	10/07/2003	Byung-Hoon Oh	1293.1862	4006
21171 7590 12/23/2008 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				
EXAMINER				
BUTLER, DENNIS				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/679,293

Applicant(s)

OH ET AL.

Examiner

Dennis M. Butler

Art Unit

2115

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,13,15 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,13,15 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. This action is in response to the RCE and amendment filed on December 11, 2008. Claims 1, 3-7, 13, 15 and 24 are pending.

DETAILED ACTION

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 24, the phrase "a power control unit to control power supply within the monitor" is unclear and indefinite as to whether it refers to controlling power supply within the monitor or whether it refers to the power control unit being within the monitor. For the purpose of examination, the examiner will interpret the phrase as a power control unit to control the supply of power within the monitor. In addition, the phrase "the power control unit within the monitor" lacks proper antecedent basis.

Double Patenting

4. Claims 1, 3-7, 13, 15 and 24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 5,961,647 in view of Chaiken et al., U. S. Patent 6,223,283. Although the

conflicting claims are not identical, they are not patentably distinct from each other because they are directed to substantially the same invention including a computer that outputs a signal via a signal cable to a monitor, the signal indicating whether the computer is powered on or off and switching circuitry in the monitor powering the monitor on and off according to the signal. The elements relating to the computer that outputs a signal via a signal cable to a monitor, the signal indicating whether the computer is powered on or off and switching circuitry in the monitor powering the monitor on and off according to the signal in the claims of the present application are related as genus to the species of invention recited in the patented claims and fully encompass the patented claims. The dependent claims of the present application substantially correspond to the elements recited in the patented claims. The generic claim elements are "anticipated" by the species of the patented invention. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim). This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. *In re Van Ornum*, 686 F.2d 937, 944, 214 USPQ 761, 767 (CCPA 1982); *Schneller*, 397 F.2d at 354. The claims differ from *Kim et al* in that *Kim et al* fails to explicitly teach the monitor including a memory storing monitor information wherein the information is provided to the computer whether the monitor is powered on or off as claimed. However, *Chaiken* teaches that it is known to provide a monitor with a memory storing monitor information and that it is conventional for the BIOS to read/download the monitor information in a monitor's ROM during initialization

with figure 2 and at column 1, lines 45-59. It would have been obvious to one of ordinary skill in the art to locate the well known and conventional monitor ROM containing the monitor information with the MICOM switching circuit in order to take advantage of the independent 5 volt power signal that provides power whether the monitor is powered on or off because this would allow the monitor to remain off during computer initialization and configuration thereby reducing the power consumed by the monitor.

Claim Rejections - 35 USC § 103

5. Claims 1, 3-7, 13, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al., U. S. Patent 5,961,647 in view of Lee, U. S. Patent Application Publication 2003/0137502.

Per claim 1:

A) Kim et al teach the following claimed items:

1. a computer (computer 100) selectively outputting a predetermined signal indicating whether the computer is powered on or off with the signal output from 1st Power Supply 120 to switching circuit 250 in figures 4 and 5, at column 8, lines 39-44 and 51-54 and at column 9, lines 17-25;
2. a monitor (display 200) receiving the predetermined signal and powering on and off according to the predetermined signal with figure 5 and at column 8, lines 23-44 and 51-54;
3. a video card processing and transmitting a video signal to the monitor with video card 130, associated connectors and cable 300 of figure 5;

4. outputting the predetermined signal from a predetermined pin of the video card with the power supply control signal pin in cable 300 and the corresponding connector pin in the video card connector, with figure 5, at column 9, lines 17-30 and at column 5, lines 36-40;

5. transmitting the predetermined signal to the monitor independent of whether the monitor is powered on or off at column 8, lines 39-44 and 51-54 and at column 10, lines 53-65;

6. a power control unit to control power supply within the monitor with MICOM and switching circuit 250 of figure 4 and at column 8, line 23 – column 9, line 16;

7. power supplied to the power control unit is cut off and power from the power supply unit in the monitor is also cut off when the computer is in a power off mode with figures 4 and 5, at column 3, lines 45-50, at column 6, lines 11-15 and at column 8, lines 39 – column 9, line 16.

B) The claims differ from Kim et al in that Kim et al fails to explicitly teach the monitor including a memory separate from the power control unit storing monitor information wherein the information is provided to the computer whether the monitor is powered on or off as claimed.

C) However, Kim describes providing a 5 volt power signal from the computer to the MICOM and switching circuit 250 with figures 4 and 5. Kim discloses supplying the 5 volt predetermined signal to the MICOM microcomputer when the monitor is powered off at column 10, lines 53-65. Therefore, Kim discloses

providing a separate power source to the switching circuit components in the monitor making the switching circuit power independent of whether the monitor powered on or off. Lee teaches that it is known to provide a monitor with a memory, separate from the power control unit, storing monitor information (manufacturer, resolution) provided to the computer whether the monitor is powered on or off at paragraph 25. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a monitor with a memory storing monitor information, as taught by Lee, in order to provide the computer and BIOS with monitor information whether or not the monitor was powered. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the memory with the MICOM switching circuit components and power the memory from the 5 volt power signal of Kim in order to provide power to the memory whether the monitor is powered on or off because of Lee's disclosure of supplying voltage to the memory chip on its own where power to the displaying apparatus is cut off (paragraph 25). This would allow the monitor to remain off while the memory was being accessed during computer initialization and configuration thereby reducing the power consumed by the monitor.

Per claims 3, 4 and 24:

A) Kim et al teach the following claimed items:

1. a computer (computer 100) selectively outputting a predetermined signal indicating whether the computer is powered on or off with the signal output from

- 1st Power Supply 120 to switching circuit 250 in figures 4 and 5, at column 8, lines 39-44 and 51-54 and at column 9, lines 17-25;
2. a monitor (display 200) receiving the predetermined signal and powering on and off according to the predetermined signal with figure 5 and at column 8, lines 23-44 and 51-54;
3. a video card processing and transmitting a video signal to the monitor with video card 130, associated connectors and cable 300 of figure 5;
4. outputting the predetermined signal from a predetermined pin of the video card with the power supply control signal pin in cable 300 and the corresponding connector pin in the video card connector, with figure 5, at column 9, lines 17-30 and at column 5, lines 36-40;
5. transmitting the predetermined signal to the monitor independent of whether the monitor is powered on or off at column 8, lines 39-44 and 51-54 and at column 10, lines 53-65;
6. a power control unit comparing a reference level (the threshold voltage level of switching transistor Q1) with a level of the predetermined signal, detecting a state of the computer based on the comparison and outputting a monitor power control signal to control power supply within the monitor with MICOM and switching circuit 250 of figure 4 and at column 8, line 23 – column 9, line 16;

7. a power supply unit that is controlled by the control unit to supply or stop the supply of power to the monitor with 2nd Power Supply 240 and associated switch of figure 4 and at column 8, line 51 – column 9, line 16;

8. power supplied to the power control unit is cut off and power from the power supply unit in the monitor is also cut off when the computer is in a power off mode with figures 4 and 5, at column 3, lines 45-50, at column 6, lines 11-15 and at column 8, lines 39 – column 9, line 16.

B) The claims differ from Kim et al in that Kim et al fails to explicitly teach the monitor including a memory, separate from the power control unit, storing monitor information wherein the information is provided to the computer whether the monitor is powered on or off as claimed.

C) However, Kim describes providing a 5 volt power signal from the computer to the MICOM and switching circuit 250 with figures 4 and 5. Kim discloses supplying the 5 volt predetermined signal to the MICOM microcomputer when the monitor is powered off at column 10, lines 53-65. Therefore, Kim discloses providing a separate power source to the switching circuit components in the monitor making the switching circuit power independent of whether the monitor powered on or off. Lee teaches that it is known to provide a monitor with a memory, separate from the power control unit, storing monitor information (manufacturer, resolution) provided to the computer whether the monitor is powered on or off at paragraph 25. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a monitor

with a memory storing monitor information, as taught by Lee, in order to provide the computer and BIOS with monitor information whether or not the monitor was powered. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the memory with the MICOM switching circuit components and power the memory from the 5 volt power signal of Kim in order to provide power to the memory whether the monitor is powered on or off because of Lee's disclosure of supplying voltage to the memory chip on its own where power to the displaying apparatus is cut off (paragraph 25). This would allow the monitor to remain off while the memory was being accessed during computer initialization and configuration thereby reducing the power consumed by the monitor.

Per claims 5 and 6:

Kim describes detecting the level of the predetermined signal, supplying power to the monitor when the level is higher than a reference level and cutting off power when the level is lower than the reference level with the threshold voltage level of switching transistor Q1 of figure 4 and at column 8, line 58 – column 9, line 16. Kim describes that the predetermined signal is 5V for powering on and 0V for powering off at column 10, lines 18-53.

Per claim 7:

Kim describes transmitting the predetermined signal to the monitor via a serial cable with the serial cable running from 1st Power Supply 120 to MICOM/switching circuit 250 in figure 5.

Per claim 13:

A) Kim et al teach the following claimed items:

1. receiving, by a power control unit controlling power within the monitor (MICOM microcomputer), a predetermined signal from a computer indicating whether the computer is powered on or off with the signal output from 1st Power Supply 120 and received by the MICOM microcomputer in figure 4 and at column 8, lines 39-44 and 51-54;
2. selectively powering, by the power control unit (MICOM microcomputer), the monitor on and off according to the predetermined signal with figure 4, at column 8, lines 23-44 and 51-54 and at column 10, lines 53-65;
3. transmitting the predetermined signal to the monitor whether the monitor is powered on or off at column 8, lines 39-44 and 51-54 and at column 10, lines 53-65. The computer supplies a powered on signal level when the computer is powered on and supplies a powered off signal level when the computer is powered off. In addition, the predetermined signal allows for powering the monitor off in a power save mode while maintaining power to the MICOM microcomputer via the predetermined signal;
4. power supplied to the power control unit is cut off and power from the power supply unit in the monitor is also cut off when the computer is in a power off mode with figures 4 and 5, at column 3, lines 45-50, at column 6, lines 11-15 and at column 8, lines 39 – column 9, line 16.

B) The claims differ from Kim et al in that Kim et al fails to explicitly teach supplying power from the predetermined signal to a memory, separate from the power control unit, storing monitor information so that the monitor information is accessible by the computer if the monitor is powered off as claimed.

C) However, Kim describes providing a 5 volt power signal from the computer to the MICOM and switching circuit 250 with figures 4 and 5. Kim discloses supplying the 5 volt predetermined signal to the MICOM microcomputer when the monitor is powered off at column 10, lines 53-65. Therefore, Kim discloses providing a separate power source to the switching circuit components in the monitor making the switching circuit power independent of whether the monitor powered on or off. Lee teaches that it is known to provide a monitor with a memory, separate from the power control unit, storing monitor information (manufacturer, resolution) provided to the computer whether the monitor is powered on or off at paragraph 25. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a monitor with a memory storing monitor information, as taught by Lee, in order to provide the computer and BIOS with monitor information whether or not the monitor was powered. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the memory with the MICOM switching circuit components and power the memory from the 5 volt power signal of Kim in order to provide power to the memory whether the monitor is powered on or off because of Lee's disclosure of supplying voltage to the memory chip on

its own where power to the displaying apparatus is cut off (paragraph 25). This would allow the monitor to remain off while the memory was being accessed during computer initialization and configuration thereby reducing the power consumed by the monitor.

Per claim 15:

Kim describes transmitting the predetermined signal to the monitor via a serial cable with the serial cable running from 1st Power Supply 120 to MICOM in figure 4. Kim describes detecting the level of the predetermined signal, supplying power to the monitor when the level is higher than a reference level and cutting off power when the level is lower than the reference level with the threshold voltage level of switching transistor Q1 of figure 4 and at column 8, line 58 – column 9, line 16. Kim describes powering off the monitor when the predetermined signal is not received due to the computer being in a DPMS mode or a power off mode at column 8, lines 51-54, at column 9, lines 8-16 and at column 10, lines 47-65.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 3-7, 13, 15 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis M. Butler whose telephone number is 571-272-

3663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Dennis M. Butler/
Primary Examiner, Art Unit 2115

Dennis M. Butler
Primary Examiner
Art Unit 2115